CLMPTO

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Claim 1 (Amended)

1. A biopolymer marker having a sequence identified as SEQ ID NO: 1 useful in indicating at least one particular disease state.

Claim 2 (Original)

Claim 2. The biopolymer marker of claim 1 wherein said disease state is myocardial infarction.

Claim 3 (New)

3. (New) A method for evidencing and categorizing at least one disease state comprising:

obtaining a sample from a patient;

conducting mass spectrophotometric analysis on said sample;

evidencing and categorizing at least one biopolymer marker sequence or analyte thereof isolated from said sample; and,

comparing said at least one isolated biopolymer marker sequence or analyte thereof to the biopolymer marker sequence as set forth in claim 1;

wherein correlation of said isolated biopolymer marker and said biopolymer marker sequence as set forth in claim 1 evidences and categorizes said at least one disease state.

Claim 4 (New)

4. (New) The method of claim **3**, wherein said step of evidencing and categorizing is particularly directed to biopolymer markers or analytes thereof linked to at least one risk of disease development of said patient.

Claim 5 (New)

5. (New) The method of claim **3**, wherein said step of evidencing and categorizing is particularly directed to biopolymer markers or analytes thereof related to the existence of a particular disease state.

Claim 6 (New)

6. (New) The method of claim **3**, wherein the sample is an unfractionated body fluid or a tissue sample.

Claim 7 (New)

7. (New) The method of claim **3**, wherein said sample is at least one of the group consisting of blood, blood products, urine, saliva, cerebrospinal fluid, and lymph.

Claim 8 (New)

8. (New) The method of claim **3**, wherein said mass spectrophotometric analysis is Surface Enhanced Laser Desorption Ionization (SELDI) mass spectrometry (MS).

Claim 9 (New)

9. (New) The method of claim **3**, wherein said patient is a human.

Claim 10 (New)

10. (New) A diagnostic assay kit for determining the presence of the biopolymer marker or analyte thereof of claim **1** comprising:

at least one biochemical material which is capable of specifically binding with a biomolecule which includes at least said biopolymer marker or analyte thereof, and

means for determining binding between said biochemical material and said biomolecule.

Claim 11 (New)

11. (New) The diagnostic assay kit of claim **10**, wherein said biochemical material or biomolecule is immobilized on a solid support.

Claim 12 (New)

12. (New) The diagnostic assay kit of claim **10** including:

at least one labeled biochemical material.

Claim 13 (New)

13. (New) The diagnostic assay kit of claim **10**, wherein said biochemical material is an antibody.

Claim 14 (New)

14. (New) The diagnostic assay kit of claim **12**, wherein said labeled biochemical material is an antibody.

Claim 15 (New)

15. (New) The diagnostic assay kit of claim **10**, wherein the sample is an unfractionated body fluid or a tissue sample.

Claim 16 (New)

16. (New) The diagnostic assay kit of claim **10**, wherein said sample is at least one of the group consisting of blood, blood products, urine, saliva, cerebrospinal fluid, and lymph.

Claim 17 (Amended)

17. The diagnostic assay kit of claim **10**, wherein said marker includes the sequence identified as SEQ ID NO: 1 and said biochemical material is at least one monoclonal antibody specific therefore.

Claim 18 (Amended)

18. A kit for diagnosing, determining risk-assessment, and identifying therapeutic avenues related to a disease state comprising:

at least one biochemical material which is capable of specifically binding with a biomolecule which includes at least one biopolymer marker including the sequence identified as SEQ ID NO: 1 or an analyte thereof related to said disease state; and

means for determining binding between said biochemical material and said biomolecule;

whereby at least one analysis to determine a presence of a marker, analyte thereof, or a biochemical material specific thereto, is carried out on a sample.

Claim 19 (New)

19. (New) The kit of claim **18**, wherein said biochemical material or biomolecule is immobilized on a solid support.

Claim 20 (New)

20. (New) The kit of claim **18** including:

at least one labeled biochemical material.

Claim 21 (New)

21. (New) The kit of claim **18**, wherein said biochemical material is an antibody.

Claim 22 (New)

22. (New) The kit of claim **20**, wherein said labeled biochemical material is an antibody.

Claim 23 (New)

23. (New) The kit of claim **18**, wherein the sample is an unfractionated body fluid or a tissue sample.

Claim 24 (New)

24. (New) The kit of claim **18**, wherein said sample is at least one of the group consisting of blood, blood products, urine, saliva, cerebrospinal fluid, and lymph.

Claim 25 (Amended)

25. The kit of claim **18**, wherein said marker includes the sequence identified as SEQ ID NO: 1 or at least one analyte thereof and said biochemical material is at least one monoclonal antibody specific therefore.

Claim 26 (New)

26. (New) The kit of claim **18**, wherein said diagnosing, determining risk assessment, and identifying therapeutic avenues is carried out on a single sample.

Claim 27 (New)

27. (New) The kit of claim **18**, wherein said diagnosing, determining risk assessment, and identifying therapeutic avenues is carried out on multiple samples such that at least one analysis is carried out on a first sample and at least another analysis is carried out on a second sample.

Claim 28 (New)

28. (New) The kit of claim **27**, wherein said first and second samples are obtained at different time periods.

Claim 29 (Amended)

29. Polyclonal antibodies produced against the marker having a sequence identified as SEQ ID NO: 1 in at least one animal host.

Claim 30 (Amended)

30. An antibody that specifically binds a biopolymer including the marker sequence identified as SEQ ID NO: 1 or at least one analyte thereof.

Claim 31 (New)

31. (New) The antibody of claim **30** that is a monoclonal antibody.

Claim 32 (New)

32. (New) The antibody of claim **30** that is a polyclonal antibody.

Claim 33 (Amended)

33. A process for identifying therapeutic avenues related to a disease state comprising:

conducting an analysis as provided by the kit of claim 18; and

interacting with a biopolymer including the sequence identified as SEQ ID NO: 1 or at least one analyte thereof;

whereby therapeutic avenues are developed.

Claim 34 (Amended)

34. The process for identifying therapeutic avenues related to a disease state in accordance with claim **33**, wherein said therapeutic avenues regulate the presence or absence of the biopolymer including the sequence identified as SEQ ID NO: 1 or at least one analyte thereof.

Claim 35 (Amended)

35. A process for regulating a disease state by controlling the presence or absence of a biopolymer including the sequence identified as SEQ ID NO: 1 or at least one analyte thereof.